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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,249	08/09/2005	Philip A. Block	60285-USA2	6680
7590		10/12/2007		
John M Sheehan FMC Corporation Patent Administrator 1735 Market Street Philadelphia, PA 19103				
			EXAMINER	
			LAWRENCE JR, FRANK M	
			ART UNIT	PAPER NUMBER
			1797	
			MAIL DATE	DELIVERY MODE
			10/12/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/518,249

Applicant(s)

BLOCK ET AL.

Examiner

Frank M. Lawrence

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>(2)</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 12, 16, 17, 26, 27 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Hince (7,160,483).

3. Hince '483 teaches a method for oxidizing organic contaminants such as pesticides in water or soil, comprising adding a solid composition that includes calcium or magnesium peroxide, a pH buffer such as sodium bicarbonate, and a ferrous catalyst (see abstract, col. 8, lines 27-43, col. 11, lines 18-65).

4. Claims 1-7, 9, 12, 16-21, 23 and 26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Rounds et al. (6,120,698).

5. Rounds et al. '698 teach a composition for oxidizing organic contaminants and biocides in water, comprising a pH adjusting agent such as sodium carbonate or bicarbonate, an oxidizer such as sodium or potassium persulfate, an algaecide that can include bivalent copper or trivalent aluminum, and EDTA (see col. 1, lines 5-13, col. 2, lines 46-59, col. 3, line 19 to col. 4, line 16, col. 7, lines 46-67).

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6. Claims 1-3, 13, 14, 16, 17 and 27-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Watts et al. (5,741,427).

7. Watts et al. '427 teach a method for the remediation of soil or groundwater comprising adding an acid-stabilized peroxide and a Fe(II) EDTA chelate or Fe(III) salt catalyst to remove pesticides and other contaminants (see abstract, col. 3, line 30 to col. 4, line 51, claims 1, 3).

8. Claims 1-7, 13-21 and 27-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Newton (5,700,107).

9. Newton '107 teaches a process for soil remediation comprising adding an acid and a complexing agent that includes a chelating agent, a salt of iron, and a persulfate such as one of the sodium salts of persulfate to remove pesticides and other contaminants at a temperature of at least 35°C and with a di- or tri-valent catalytically active metal oxide (abstract, sol. 1, lines 52-67, col. 2, lines 24-49, col. 4, lines 1-16, col. 5, lines 41-50, col. 7, lines 8-10).

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 8, 10, 11, 22, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rounds et al. '698.

12. Rounds et al. '698 disclose all of the limitations of the claims except that the peroxygen compound is a combination of di- and monopersulfate, and that the carbonate is added in a preferred relative amount to the persulfate. It is submitted that one having ordinary skill in the

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art would know to use any available combination of persulfates that are known in the art to be capable of oxidizing contaminants in water based on the teaching of perfulfates of sodium in the patent, and to use the carbonate at preferred levels that will achieve a desired level of decontamination based on the nature of the contaminants, process conditions, and cost and availability of the agents.

13. Claims 9, 13-15, 23 and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hince '483 in view of Rounds et al. '698.

14. Hince '483 discloses all of the limitations of the claims except that the pH modifier is sodium carbonate, that the composition is added to the soil in a sufficient amount and at a preferred temperature. Rounds et al. '698 disclose a treatment composition as described in paragraph 5 above. It would have been obvious to one having ordinary skill in the art at the time of the invention to use sodium carbonate because it is a known equivalent of bicarbonate as a pH adjustment agent. Absent a proper showing of criticality or unexpected results, the amount of composition used and the process temperature are considered to be parameters that would have been routinely optimized by one having ordinary skill in the art at the time of the invention based on the level of contamination and desired results.

### *Conclusion*

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The reference to Cox (5,700,377) discloses a water treatment composition.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank M. Lawrence whose telephone number is 571-272-1161.

The examiner can normally be reached on Mon-Thurs 7:30-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Frank M. Lawrence  
Primary Examiner  
Art Unit 1724

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8-23-07